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COMPLIANCE

U I A

DēLonghi

CE

DECLARATION OF COMPLIANCE

The company:

DeLonghi S.p.A.
Via L. Seitz, 47
31100 TREVISO ITALY
DECLARES
under its own responsibility that:
the AIR-CONDITIONERS

Range : CF-CP AR
Models : CP 20 ARE 290
CF-CP 30 ARE 290
CF-CP 40 ARE 290

are in conformity with

- Low voltage Directive 73/23EEC,93/68 EEC,
- Electromagnetic compatibility Directive 89/336 EEC and 92/31EEC

The following symbols have been used in some parts of this booklet and inside the appliance:

U **User**	**Attention**	**Danger: moving blades**
I **Installer**	**Forbidden**	**Danger: high temperature**
A **After-sales service**	**Danger: live parts**	**Fire hazard**

GENERAL RECOMMENDATIONS

U I A

⚠ After having removed the packing, check that the contents are intact and complete. In the event of non-compliance, contact the DēLonghi Agency which sold you the appliance.

⚠ DēLonghi appliances should be installed by a qualified company in accordance with the laws and regulations in force in the country of installation. Upon completion of work this company should issue the owner the declaration of compliance of installation with current regulations and standards and with the instructions given by DēLonghi in this booklet.

⚠ These appliances have been designed to heat or cool the air of rooms and should only be used for this purpose in compatibility with their performance characteristics.
Under no circumstances can DēLonghi be held liable for damage caused to property or injury to persons or animals due to incorrect installation, regulation and maintenance or to improper use.

⚠ Too low a temperature is harmful to health as well as being a useless waste of energy.
Avoid prolonged direct contact with the flow of air.
Avoid the room being closed for a long time. Periodically open the windows to ensure a correct change of air.
During storms put the installation on/off switch to "off".

⚠ This instruction booklet is an integral part of the appliance and should therefore be carefully preserved and ALWAYS accompany the appliance, also in the event of transfer to another owner or user or into another installation.
Should the booklet be damaged or lost, request a copy from the DēLonghi Area Service Centre.

⚠ Repair or maintenance work must be carried out by the DēLonghi Service Centre or by qualified personnel in accordance with instructions given in this booklet. Do not alter or tamper with the appliance, since hazardous situations could be created and the manufacturer of the appliance will not be liable for any damage or injury caused.

⚠ The unit should be installed in compliance with local installation and safety regulations.

⚠ For any repairs, contact only customer service centres authorised by the manufacturer. Repairs made by unauthorised personnel may be dangerous.

⚠ The CP20 ARE 290 air conditioner must be used and stored in rooms with a volume of over 31 cubic metres.

⚠ The CP30-CF30 ARE 290 air conditioner must be used and stored in rooms with a volume of over 53 cubic metres.

⚠ The CF40 ARE 290 air conditioner must be used and stored in rooms with a volume of over 53 cubic metres.

⚠ Non-ventilated environments where an appliance containing flammable refrigerant is used must be compatible, to avoid the possibility of a gas leak reaching a level of concentration such as to cause a fire or explosion resulting from the presence of other heat sources (electric heaters, stoves or similar units).

The R 290 refrigerant charge is highly flammable, and could cause an explosion in the event of leaks occurring in closed or poorly-ventilated areas. This gas is heavier than air and invisible, but it generates a mist if there is humidity in the air.
Avoid contact of the liquefied gas with eyes or skin as it could cause injuries.

Transportation, charging, cleaning, recovery and disposal of the refrigerant should be carried out only by customer service centres authorised by the manufacturer.
Disposal of the appliance should be carried out only by specialised personnel authorised by the manufacturer.

BASIC SAFETY RULES

U I A

Using electrically-operated products implies the observance of certain basic safety rules, such as those given below:

⛔ Children and unassisted handicapped persons are not allowed to use the air-conditioner.

⛔ Do not touch the air-conditioner when barefoot or parts of the body are wet or damp.

⛔ Do not carry out any cleaning operation until the air-conditioner has been disconnected from the mains electricity supply by putting the installation on/off switch to "off".

⛔ Do not alter the safety or regulating devices without the permission and instructions of the manufacturer of the air-conditioner.

⛔ Do not pull, detach or twist the electric cables connected to the air-conditioner, even if disconnected from the mains electricity supply.

⛔ Do not sit or stand on the appliance or rest anything at all on top of it.

⛔ Do not spray or throw water directly onto the air-conditioner.

⛔ Do not introduce sharp, pointed objects through the air intake or outlet grilles

⛔ Do not access internal parts of the air-conditioner without having first put the on/off switch to "off".

⛔ Do not leave the packing material (cardboard, staples, plastic bags, etc.) within reach of children, but dispose of properly since it is a potential source of danger.

Extraordinary maintenance
Programmed maintenance always represents a saving in the running of the installation as well as preventing possible faults.
To ensure trouble-free operation of the air-conditioner, it is recommended that it be inspected at least once a year, carrying out the following checks:
- cleanliness of the heat exchange coils of both units

Exposure control/personal protection
Use protective clothes and suitable gloves; protect eyes and face.

Handling
Avoid inhaling high concentrations of vapors.
The atmospheric concentrations should be reduced to a minimum and kept below the professional exposure limit. The vapors are heavier than air and high concentrations may therefore form near to the ground, where general ventilation is poor. Under such circumstances, ensure there is adequate ventilation.
Avoid contact with naked flames and hot surfaces, otherwise irritating and toxic decomposition products could form. Avoid the liquid from coming into contact with eyes or skin.

Precautions to take in the event of accidental spillage
Ensure adequate personal protection (using protective breathing equipment) during elimination of spillage. If conditions are sufficiently safe, isolate the source of the leak. With small leaks or spills and provided there is adequate ventilation, let the material evaporate. With copious leaks or spills, adequately ventilate the area; keep the material from expanding using sand, earth or other suitable absorbent material. Prevent the liquid from entering into drains, sewers, cellars or work holes, since the vapors could create a suffocating atmosphere.

First aid measures

Inhalation
- Remove the casualty from the area of exposure and keep him/her warm and still.
  Ask for immediate medical aid.

Contact with the skin
- Thaw the involved parts with water. Remove contaminated clothes, which could stick to the skin in the event of cold burns. In the event of contact with the skin, immediately rinse with abundant lukewarm water. Should there be symptoms of irritation or blisters, ask for medical aid.

Contact with the eyes
- Bathe immediately with an eyewash solution or clean water, keeping the eyelids wide apart for at least ten minutes. Ask for medical aid.

Swallowing
- Do not provoke vomiting. If the casualty is conscious, make him/her rinse out his/her mouth with water and drink 200-300 ml of water. Ask for immediate medical aid.

Other medical care
- Symptomatic and back-up treatment as required. Do not administer adrenaline or similar sympathomimetic medicines following exposure, due to the risk of cardiac arrhythmia.

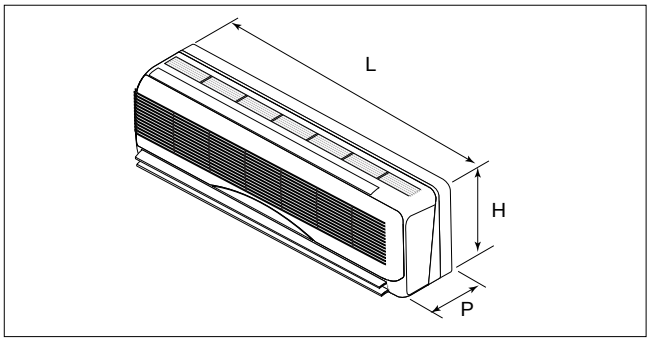
ATTENTION
For further information on the characteristics of the refrigerant fluid, refer to the safety data sheets available c/o the refrigerant manufacturers.

DēLonghi spa cannot be held liable for any errors in this booklet and reserves the right to alter the specifications of its products without notice.

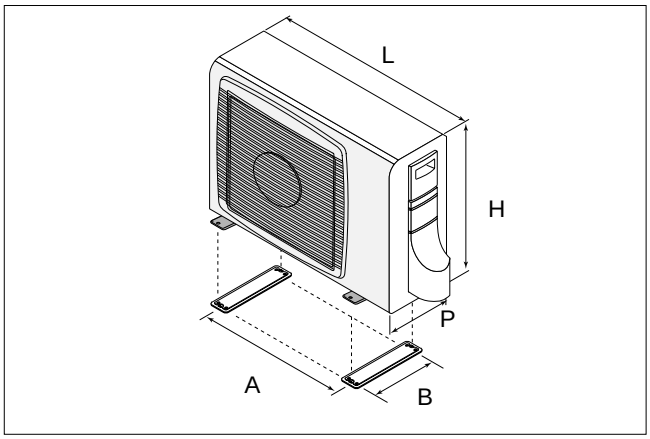
ACCESSORY	Model	Code
Condensate drainage pipe ø 16 - 50 m.		552626
Activated carbon filters (1 pc.)	20÷30	552929
Wall bracket Gold	20÷30	552632
Wall bracket Silver	20÷30	5572002700
Condensate drain pump		552627 M

SIZE AND WEIGHT

INDOOR UNIT			
Model	**20**	**30**	**40**
L	810	810	967
H	300	300	300
P	195	195	195
Weight	9	9	11



OUTDOOR UNIT			
Model	**20**	**30**	**40**
L	660	660	800
H	500	500	640
P	230	230	280
Weight	34	35	52
A	420	420	550
B	264	264	310



RECEIVING THE PRODUCT

The air-conditioner comes in two packs protected by cardboard packaging and is accompanied by:

- Instruction booklets for the user and the installer.
- Warranty certificate.
- Bar code labels.
- Supplied accessories, which are contained in a plastic bag to be found inside the indoor unit pack.

⚠ The instruction booklets are an integral part of the air-conditioner and should therefore be carefully read and preserved.

⚠ It is advisable to remove the packing only when the air-conditioner has been located in the point of installation.

⚠ Carefully remove the adhesive strips positioned on the air-conditioner

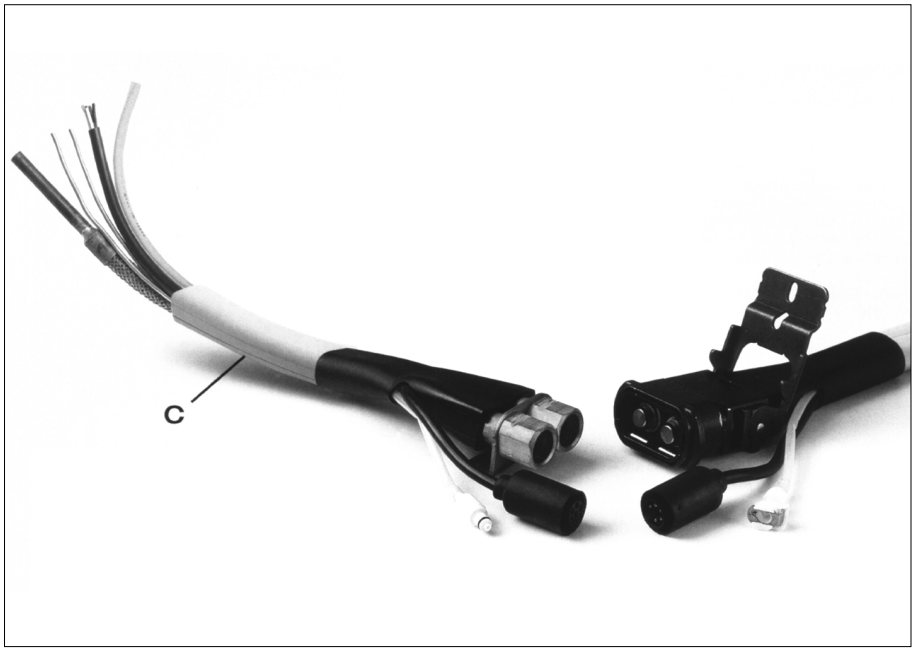
⛔ Packaging components must be disposed of correctly and not left within reach of children since they are a potential source of danger.

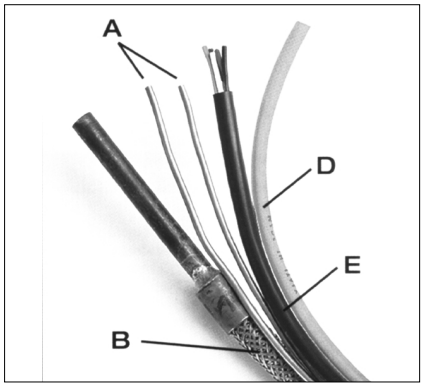
HANDLING

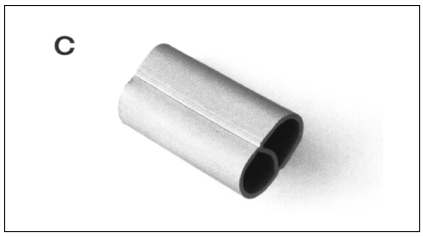
The air-conditioner should be handled by suitably equipped personnel using equipment that is suitable for the weight of the appliance.

⚠ During transportation the outdoor unit must be kept in an UPRIGHT position.

QUICK CONNECTOR





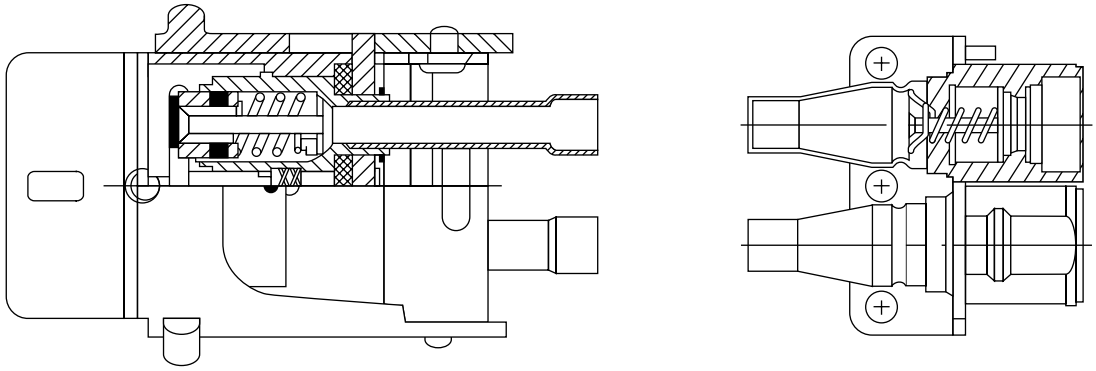


Components description

A. Liquid line (high pressure)
B. Vapor (low pressure)
C. Cover
D. Electrical

CONNECTION OF THE UNIT

BASIC OPERATION
The fast connector coupling uses a retractable sleeve and stem valve on the female half and a spring loaded poppet on the male side to create a safe, clean and quick separation of split air condotioning system with minimal fluid loss and air inclusion (see Figure 1).



Female Fig. 1 Male

No tools are required to connect the coupling: a retractable sleeve and four latch pins hold the male and female halves together. The coupling valves open when the handle is pushed forward and locked into place, and shut when the handle is in the “full back” position (see figures 3-4).

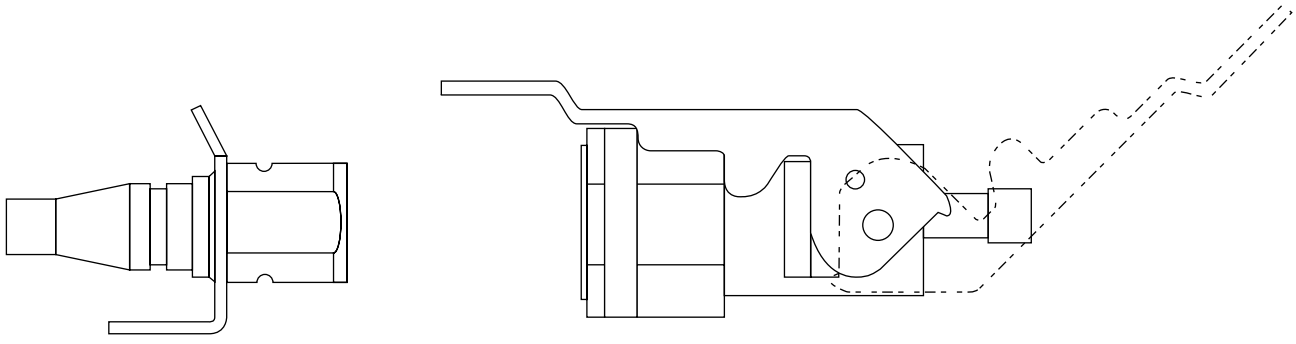


Fig. 2

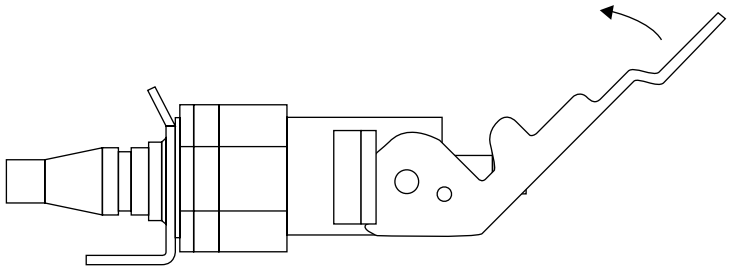


Fig. 3

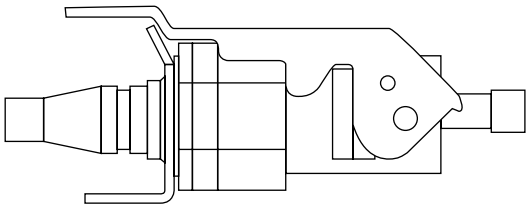


Fig. 4

TO CONNECT

- With the coupling handle in the “full back” position (Figure 5), retract the release sleeve on the female and insert the male half into the coupling. Make sure the insertion tab on the male half lines up with the slot on the female body (see Figure 5).
- Realease the retractable sleeve to lock the halves together and tug gently on the halves to ensure locking has taken place (Figure 3).
- Rotate the coupling handle towards the male half to open the coupling. Make sure the handle bottoms on the coupling body and the locking pin (on models equipped with spring loaded locking pins) “pops” into the handle hole properly (see Figure 4).
- Connect the auxiliary electrical and condensate lines, if applicable.
- Connect the male and female caps together, if provided, to keep them clean while the unit is in operation and they are disconnected from their appropriate halves.
- Connect unit to power outlet and start the unit.

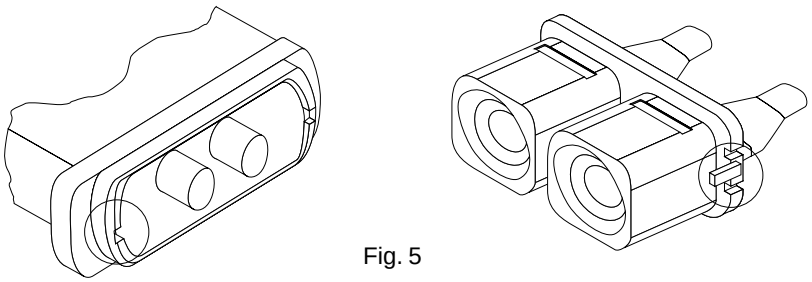


Fig. 5

TO DISCONNECT

- Shut off the air conditioning unit and unplug the unit from the power outlet.
- Wait five minutes for line pressures to equalize.
- Disconnect the auxiliary electrical and condensate lines, if applicable.
- On couplings equipped with spring loaded locking pins, depress the pin until it clears the coupling handle is pulled up. When the handle clears the locking pin, pull coupling handle to its “full back” position (see Figure 3).
- Retract the spring loaded release sleeve on the female and remove the male half (see Figure 5).
- Install the caps on both halves, if provided. Close the handle on female half after installing the cap.

DO’S AND DON’T’S

- Thoroughly check the coupling for proper position of seal (see Figure 1), missing seals, leaking valves, debris, proper mounting, or other damage prior to reinstalling and restarting the air conditioner. Don’t use a damaged coupling.
- Always keep the couplings connected even when the system is not in use in order to minimize refrigerant effusion, coupling damage and the entry of dirt or other foreign material. If it is not possible to keep the couplings connected, then both halves should be capped immediatly upon disconnection with the optional caps as shows in Figures 6 & 7.
- Don’t tamper with the valves while disconnected or allow children access to disconnected couplings.
- Don’t drop coupling half on any hard surfaces. The male half is made of brass and if allowed to drop may become damaged beyond the point where it can be reconnected. Installing caps immediatly after disconnection will minimize the possibility of damage if dropped.
- Do not open the coupling handle while the air conditioning unit is operating. After shutting off the air conditioning unit, wait five minutes before opening the coupling in order to equalize line pressures. Opening the coupling during airconditioner operation may damage the compressor.

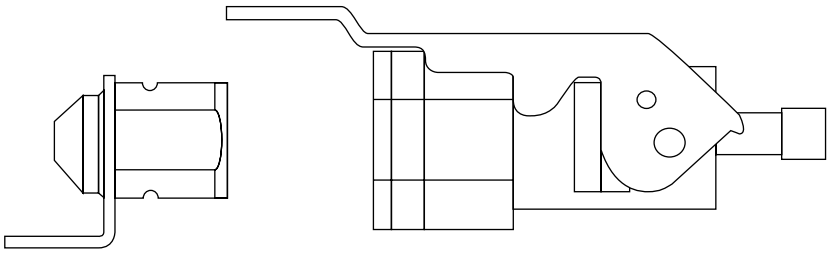


Fig. 6

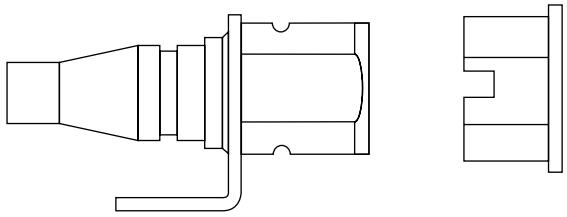
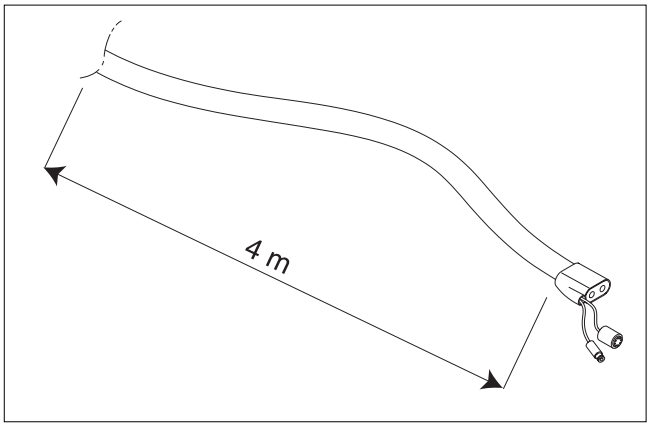


Fig. 7

The length of the pipe connecting the internal unit to the external one is 4 m.



The **DēLonghi** air-conditioner is an appliance designed for small user systems. It consists of an indoor unit for wall mounting and an outdoor unit.

REMOTE CONTROL

The infrared remote control is used for function control, regulation and programming; its operating modes and use are described in the user booklet.

INDOOR UNIT

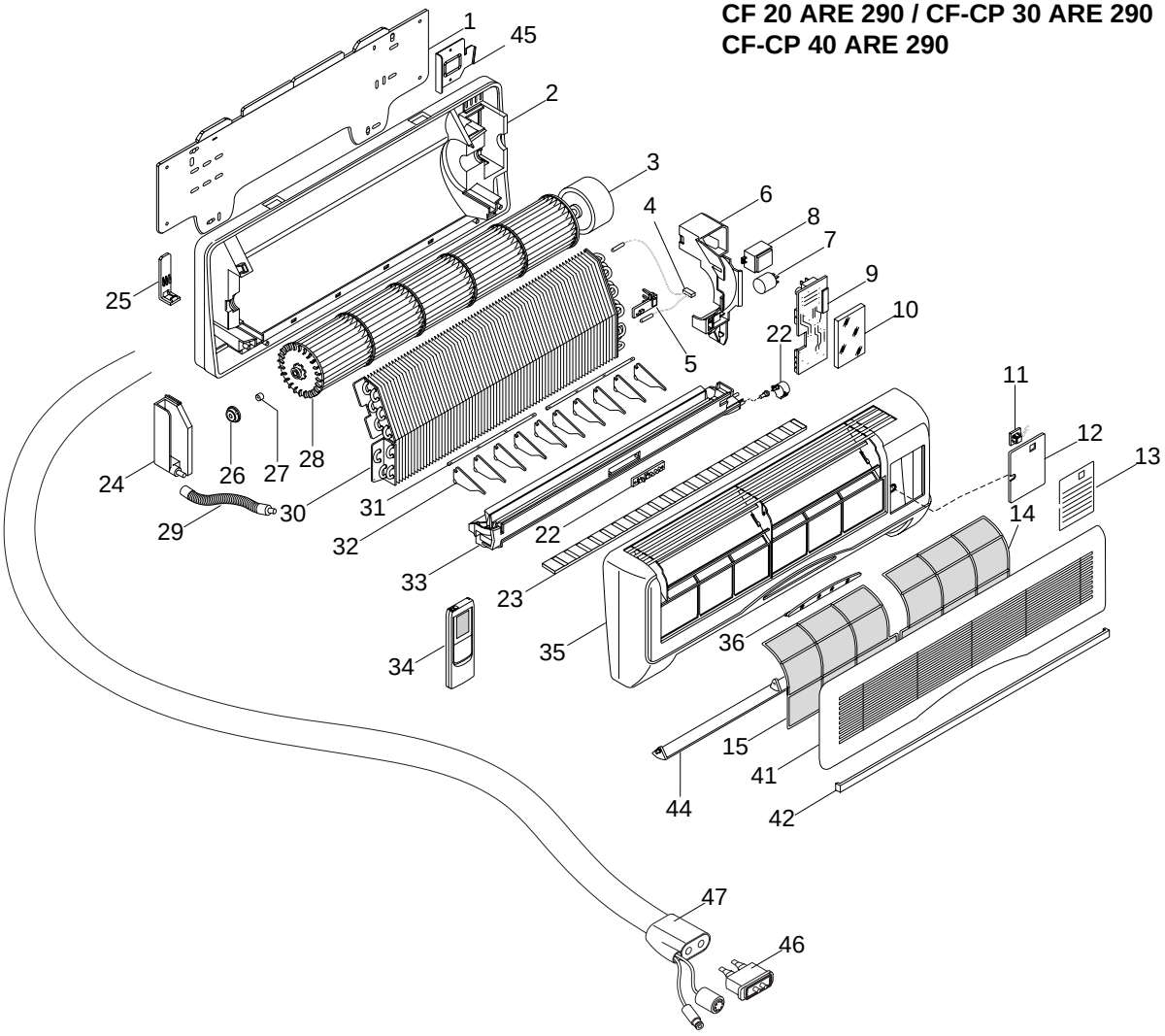
The indoor unit housing is plastic.

The electric fan unit consists of a tangential fan powered by alternating current; it ensures high performance, efficiency and low noise operation.

The speed may be changed according to needs. The heat exchanger has a large surface area and consists of scored copper pipes and swirl-type aluminium fins.

Regulation, control of functions, data interchange with the outdoor unit and diagnostics are governed by a microprocessor card.

CF 20 ARE 290 / CF-CP 30 ARE 290
CF-CP 40 ARE 290



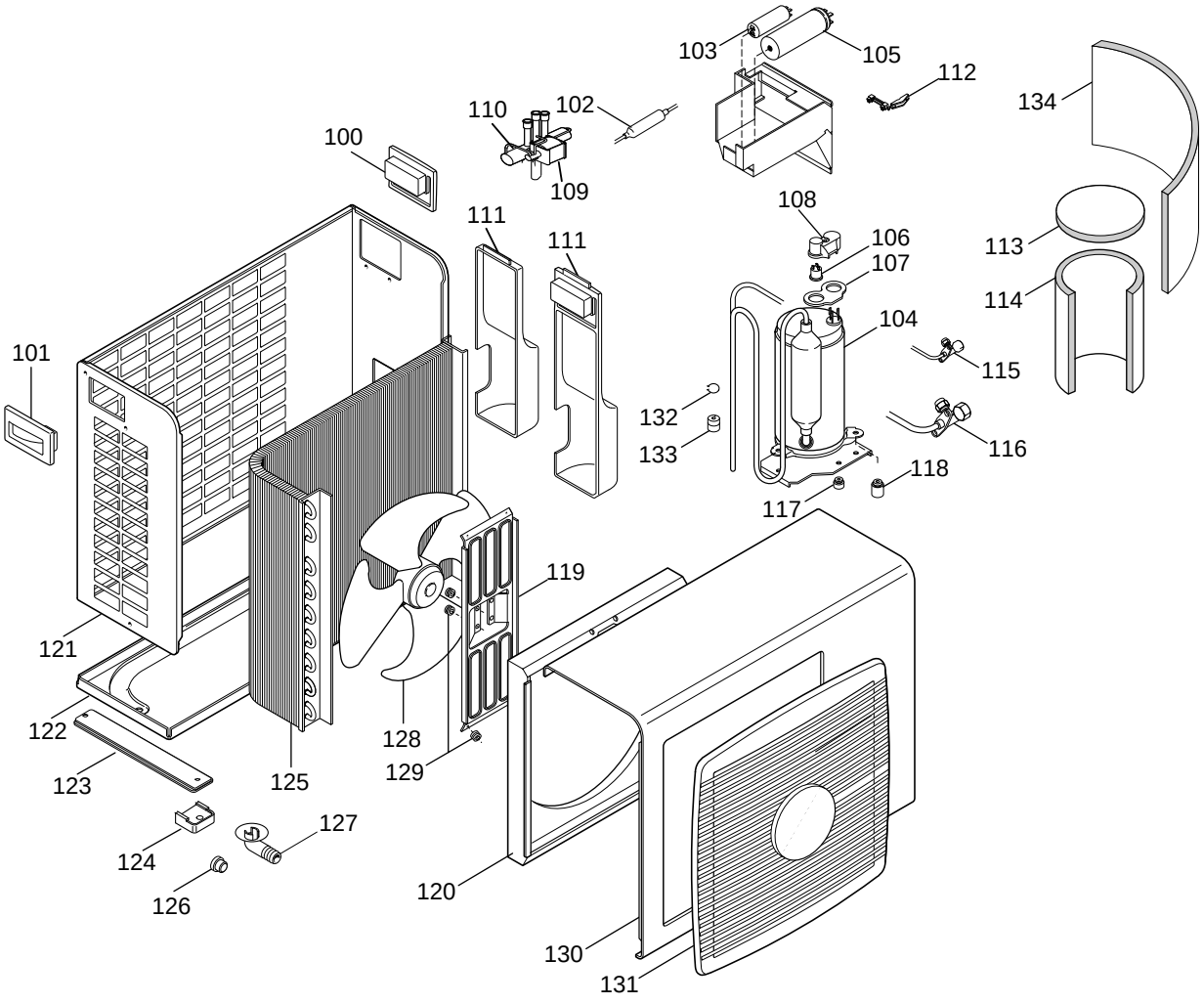
1	Wall-mounting plate	15	Air filter	29	Drain pipe	42	Strip
2	Indoor unit base	16	Flaps motor l.h. shell	30	Finned coil	43	Bushing
3	Indoor fan motor	17	Flaps motor r.h. shell	31	Flaps connecting rod/intermediate control	44	Louver
4	Sensor unit	18	Flap gear			45	Pipe fixing bracket
5	Room sensor support	19	Flap gear	32	Vertical flaps	46	Quick male coupling
6	Card support box	20	Flap gear	33	Condensate collecting tray	47	Connection tube
7	Noise filter	21	Flap motor	34	Remote control		
8	Fan capacitor + transformer	22	Receiver-led card	35	White cowl		
9	Electronic card	23	Tamperproof grille	36	Logo tab		
10	Cover	24	Fan support	37	Bushing		
11	Mode push button	25	Fixing angle bracket	38	Bushing		
12	Cover	26	Fan rubber grommet	39	Lower louver		
13	Sticker	27	Plastic fan bushing	40	Upper louver		
14	Air filter	28	Fan	41	Front grille		

OUTDOOR UNIT

The high efficiency sliding-vane compressor is on double vibration-isolation flexible mountings and is activated by an electric motor powered by alternating current and fitted with an overload cutout.

The electric fan unit consists of an axial flow fan in plastic and an electric motor powered by alternating current.

The large surface area exchange coil consists of scored copper pipes and aluminium fins.
The air-conditioner is commanded and controlled by an electronic microprocessor system.



100	Right handle	112	Cable clamp	126	Condensate drainage union
101	Left handle	113	Compressor insulated cover	127	Fan
102	Filter	114	Compressor insulated cowl	128	Fan shock-absorber
103	Fan breakaway starting capacitor	115	Quick female coupling	129	Front
104	Compressor	116	Lower rubber plug	130	Front grille
105	Compressor cap.	117	Upper rubber plug	131	Spring
106	Compr. protection	118	Fan support	132	Vibration-damping grommet
107	Compr. gasket	119	Fan flow nozzle	133	Insulating cowl
108	Compr. cap	120	Back		
109	4-way valve coil	121	Base		
110	4-way valve	122	Metal foot		
111	Pipe closing panel	123	Vibration isolation foot		
111	Pipe closing panel + r.h. handle	124	Finned coil		
		125	Plug		

TECHNICAL DATA

U I A

		CP 20 ARE 290	CF 30 ARE 290	CP 30 ARE 290	CF 40 ARE 290	CP 40 ARE 290
Power supply	V/f/Hz	230/1/50				
Cooling capacity	Btu/h	8013	12000	12000	17000	16320
	W	2350	3520	3500	5000	4800
	Kcal/h	2025	3035	3020	4310	4137
Consumption	W	740	1090	1050	1650	1570
Current requirement	A	3.9	5.7	5,7	7.6	7.6
E.E.R.		3.18	3.23	3.20	3.03	3.0
Dehumidifying	l/h	1.3	1.5	1.5	2.2	1.9
Heat output	Btu/h	8422	-	12000	-	19720
	W	2470	-	3530	-	5800
	Kcal/h	2130	-	3030	-	5000
Consumption	W	690	-	1055	-	1860
Current requirement	A	3.5	-	6	-	8.1
C.O.P.		3.57	-	3.34	-	3.11
Quantity of R290 refrigerant	g	200	420	420	600	600
INDOOR UNIT						
Air flow	m^3/h	450	550	580	650	650
Sound level	dB(A)	35	36	36	37	37
Size: length	mm	810			967	
height	mm	300			300	
depth	mm	195			195	
Indoor unit weight	kg	8	9	9	11	11
OUTDOOR UNIT						
Air flow	m^3/h	1350	1400	1600	2100	2500
Sound leve	dB(A)	4	45	46	46	47
Size: length	mm	660			800	
height	mm	500			640	
depth	mm	230			280	
Outdoor unit weight	kg	35	35	35	51	52
SPECIFICATIONS						
Thermostat		•				
Timer		•				
Electronic defroster		•				
LCD remote control		•				
Microcomputer		•				
Electronic diagnostics		•				
Automatic night function		•				
Fan speed		3 + silent				

Performance is referred to the following conditions::

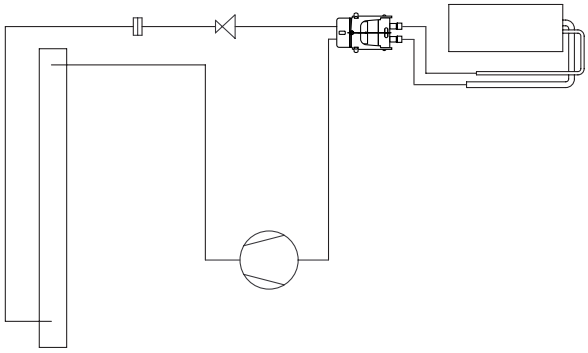
- Cooling — indoor unit inlet air temperature 27°C d.b., 19°C w.b.
  external air temperature 35°C d.b., 24°C w.b.
- Heating — indoor unit inlet air temperature 20 d.b., 15°C w.b.
  external air temperature 7°C d.b., 6°C w.b.

OPERATING LIMITS

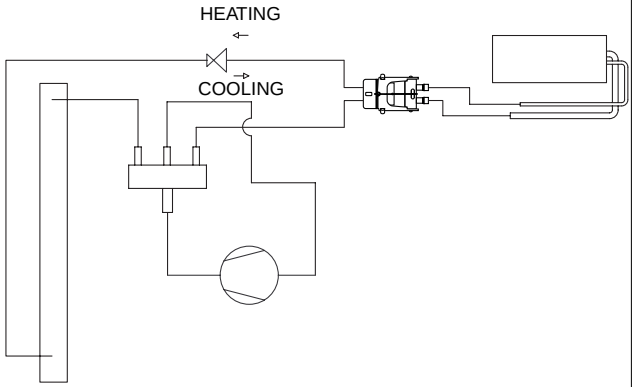
I A

Operating cycle	Room air temperature		External air temperature	
	MIN	MAX	MIN	MAX
Cooling	21°C d.b..16°C w.b.	32°C d.b./23°C w.b.	-10°C d.b.	43° C d.b.
Heating	15°C d.b.	27°C d.b.	-10°C w.b.	18°C w.b.

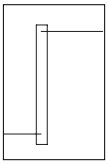
Cooling



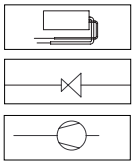
Heating/Cooling



Legend



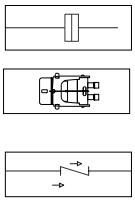
Condenser coil



Cooler coil

Throttling part (capillary)

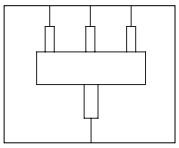
Compressor



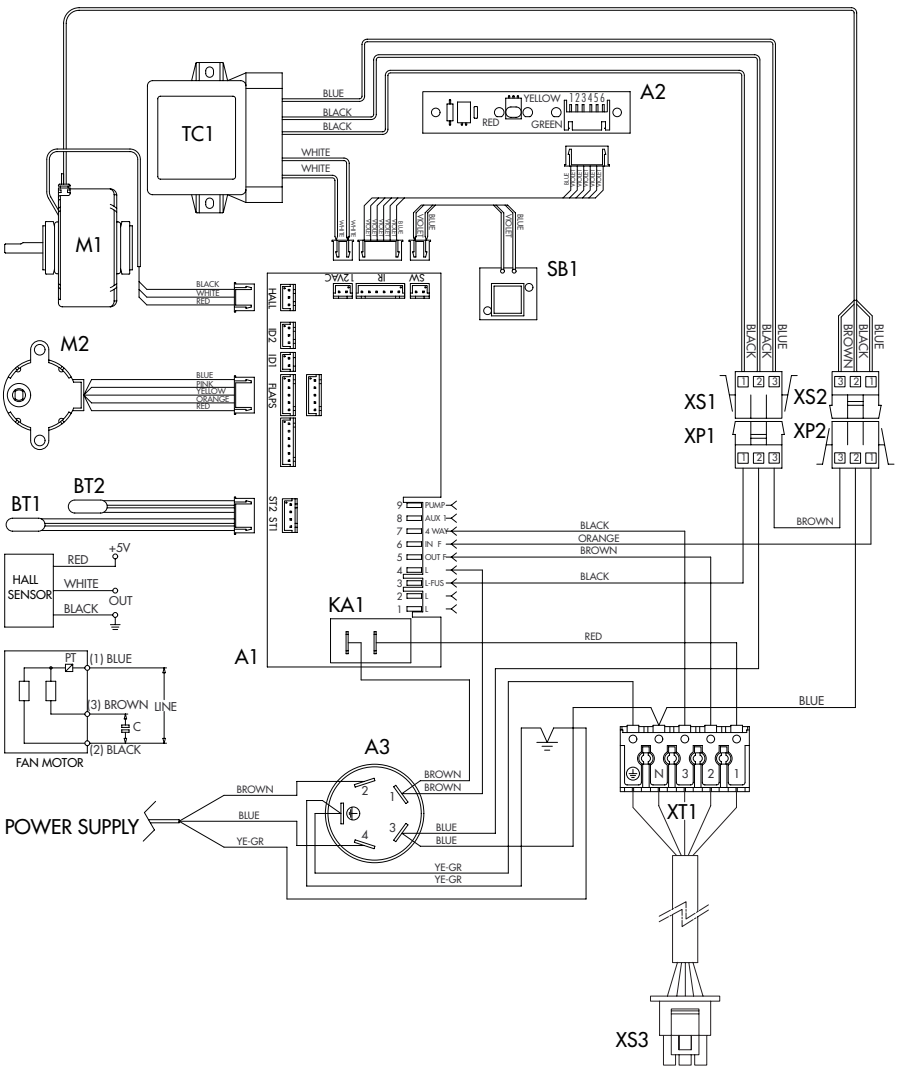
General filter

Quick coupling

Check valve



Reversing valve



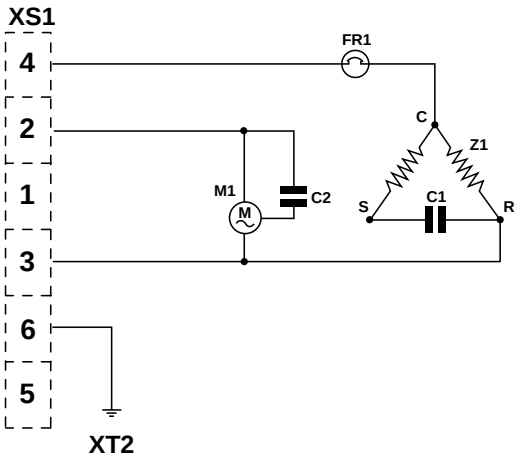
LEGEND

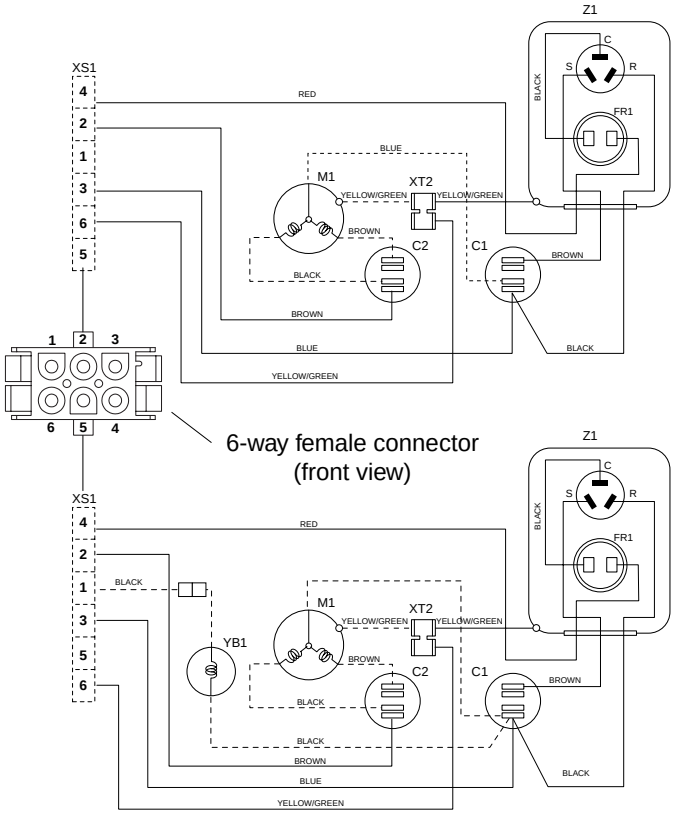
A1	=	Unit power card
A2	=	Infrared receiver and leds card
A3	=	EMC noise filter
BT1	=	Room temperature sensor
BT2	=	Exchanger temperature sensor
KA1	=	Compressor relay
M1	=	Indoor fan motor
M2	=	Stepping motor for flap
SB1	=	Manual operation key
TC1	=	Transformer for card power supply
XP1-XS1	=	Transformer power supply connector
XS2-XP2	=	Motor M1 power supply connector
XS3	=	Quick connector
XT1	=	Power supply terminal board

OUTDOOR UNIT MULTIFILAR WIRING DIAGRAM

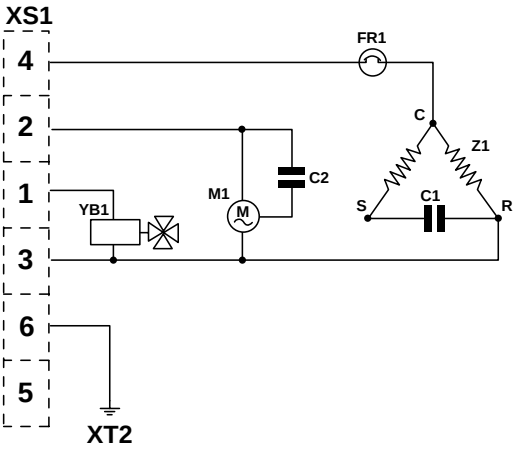
I A

(1) Cooling only model





(2) Heat pump model

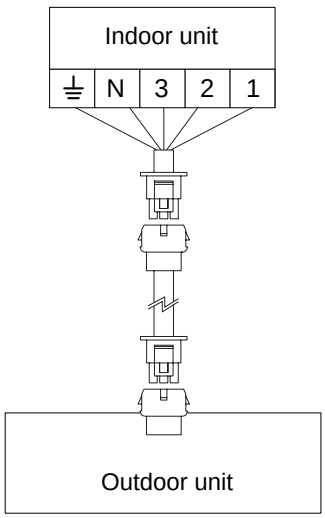


1 = Compressor power supply 2 = Fan motor power supply 3 = (1) N.C. (free) 3 = (2) Command line reversing valve N = Neutral ⏚ = Earth 6 = N.C. (free) 7 = N.C. (free)	XS1 = Female connector FR1 = Overload cutout (compressor)) Z1 = Compressor C1 = Compressor start and run capacitor M1 = Fan motor C2 = M1 capacitor start and run XT2 = Terminal board for earth YB1 = Reversing valve	

INDOOR/OUTDOOR UNIT WIRING DIAGRAMS

I A

Cooling/Heating



INSTALLATION

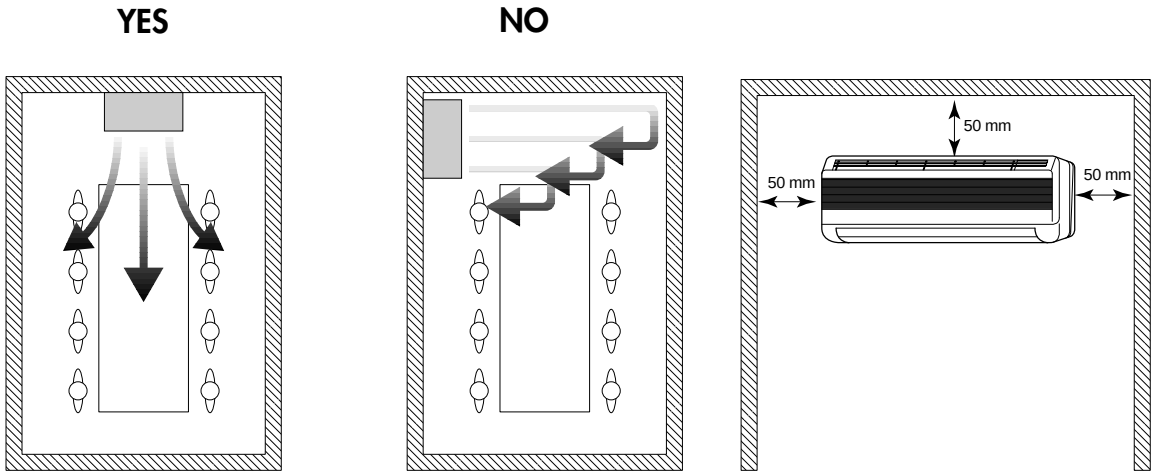
The place of installation should be established by the installation designer or by a technically competent person and should take into account technical requirements as well as relevant current laws and regulations, which envisage the obtaining of specific permits (e.g. town-planning, architectural, fire, environmental pollution regulations, etc.); it is therefore advisable to apply for and obtain the necessary permits prior to installing the air-conditioner.

The air-conditioner should be installed by a qualified company in accordance with relevant laws and regulations in force in the country of installation.

Before commencing installation, establish the position of the indoor and the outdoor unit, taking into consideration the minimum technical spaces, maximum length of the refrigerant lines and the difference in level between the appliances.

INSTALLATION OF THE INDOOR UNIT

The indoor unit should be wall-mounted.
It should be positioned so that the treated air may circulate freely throughout the whole room, while observing the minimum spaces necessary for technical and maintenance operations.



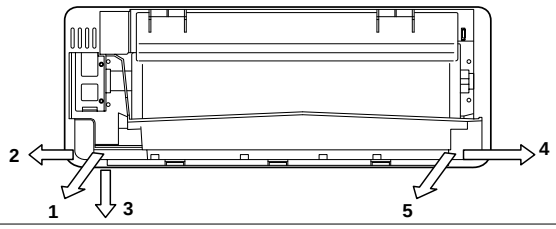
⚠ Recommended installation height is between 1.80 and 2.40 m from the ground.

Water connections

Prior to installing the air-conditioner, decide the direction of the outlet pipes; they may be arranged in any of the five directions indicated in Fig.(8):

1. to rear right
2. to right
3. downwards
4. to left
5. to rear left

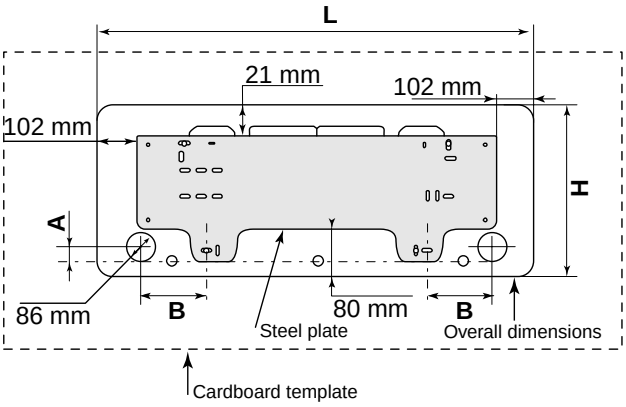
Fig. 8



Positioning the fixing plate

- Remove the steel fixing plate on the unit back
- Rest the cardboard reference template, supplied in the kit, against the wall
- Position the steel fixing plate in the area outlined by the cardboard reference template
- Make sure the steel fixing plate is level, using a spirit level or a plumb line
- Secure the steel fixing plate using the 5 screw anchors and relative screws provided in the kit
- Should the refrigerant, electrical and condensate drainage lines exit from the rear in direction “1” or “5”, make the hole in the wall using a ø 68 mm bit, complying with the distances indicated in the figure to the side Fig. (9).

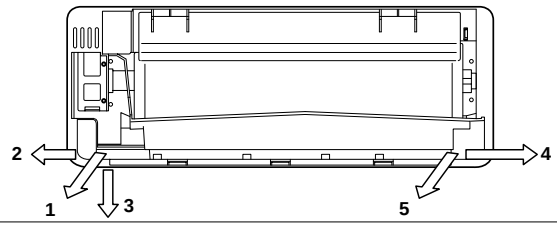
Fig. 9



INSTALLATION OF THE INDOOR UNIT

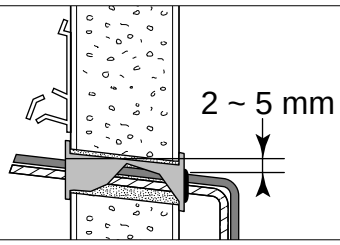
- The hole in the wall should be made sloping downwards in order to aid the natural flow of the condensate water, observing the indications given in Fig.(11).
- Having completed all the operations for installing the steel fixing plate, remove the reference cardboard template.
- Position the pipes according to the direction required, bending them properly in order not to cause kinks in the actual pipes.
- To position the pipes for directions “1” and “2” Fig.(10), they must be rotated to the required direction.
- Avoid bending the copper pipes several times in the same point, otherwise they could be damaged.
- Remove the unions and the rubber plugs from the indoor unit refrigerant circuit fittings only at the moment of connecting to the outdoor unit.
- If the outlet direction is “2”, “3” or “4”, use a pair of pliers to remove the relative plastic knock-out on the unit.

Fig. 10



Model	20	30	40
L	810	810	967
H	300	300	300
A	52	40	40
B	85	138	138

Fig. 11



Positioning the indoor unit on the steel fixing plate

After having connected the indoor unit to the outdoor unit connecting pipes, proceed as follows:

- Attach the indoor unit to the steel fixing plate by means of the relative slots on the back of the air-conditioner Fig.(12).

- Then press the indoor unit firmly onto the fixing plate, ensuring that it is secured by the spring catch designed for the purpose.

For further safety, after having attached the indoor unit to the previously fixed steel plate, it is advisable to make another two holes in the wall and secure the unit using the spacers and the screws provided in the kit. To facilitate drilling operations, it is advisable to fix the unit onto the fixing plate, lift the front part and mark the drilling points on the wall through the relative holes. Fig.(13).

Fig. 12

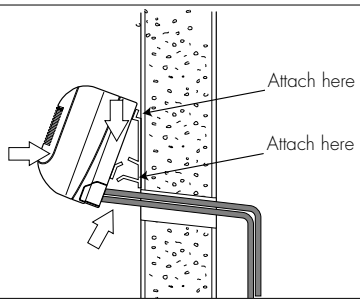
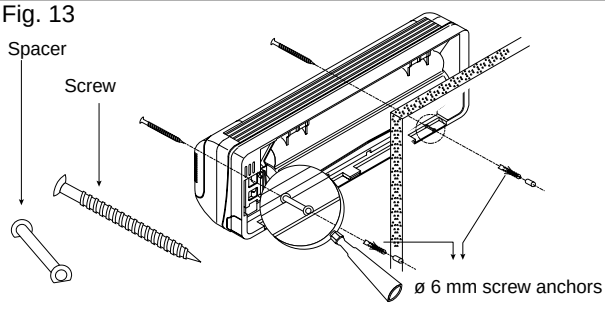


Fig. 13



INSTALLATION OF THE OUTDOOR UNIT

The outdoor unit should be put in a position that guarantees the minimum space for sufficient air circulation and to allow maintenance work and the connections of electrical and refrigerant circuit lines.
It may be installed on a floor or flat roof or wall-mounted, provided its weight is properly supported and there is no transmission of vibration to the adjacent rooms.

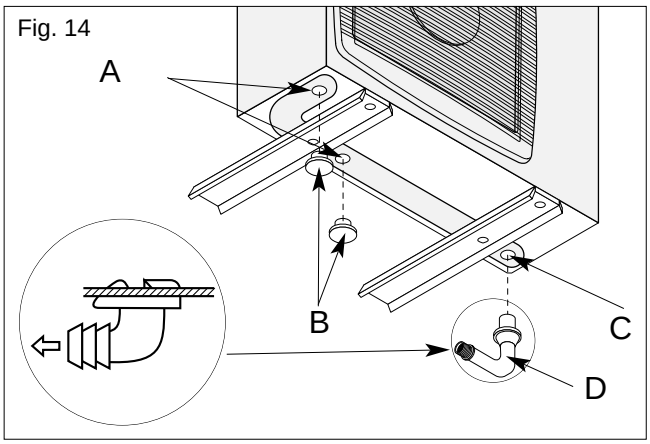
It is advisable to avoid:
- installation in cavities or air vents;
- installation where obstacles or barriers could cause recirculation of the expelled air;
- installation in places with an aggressive atmosphere;
- installation in confined places in which the sound level of the outdoor unit could be increased by reverberation or resonance;
- installation in corners where dust, leaves or anything else usually collects, which could reduce the efficiency of the air-conditioner by obstructing the passage of air;
- installation in places where the air expelled by the outdoor unit could enter the inhabited rooms through windows or doors, thereby causing discomfort to those inside;
- installation in a place where the air expelled from the outdoor unit is against a prevailing wind;
- installation in a place that is in direct sunlight.

Installation of the outdoor unit drain line (if available)

During operation in the heating mode, the condensate water may be drained from the outdoor unit through three drain holes.

Insert the drain male fitting into the hole where drainage of the condensate water is required and plug the remaining two holes using the plugs B supplied in the kit, as shown in Fig.(14).

Fig. 14

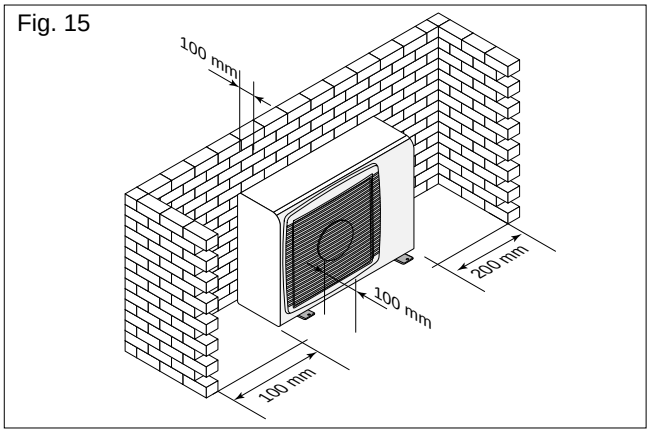


FLOOR INSTALLATION

Installation on a floor or flat roof does not necessitate fixing the feet to the floor. The feet should instead be placed on supports (~70÷80 mm) to allow application of the condensate drain line (for units with heat pump only).

⚠ The minimum distances shown in the figure should be observed. Fig.(15).

Fig. 15

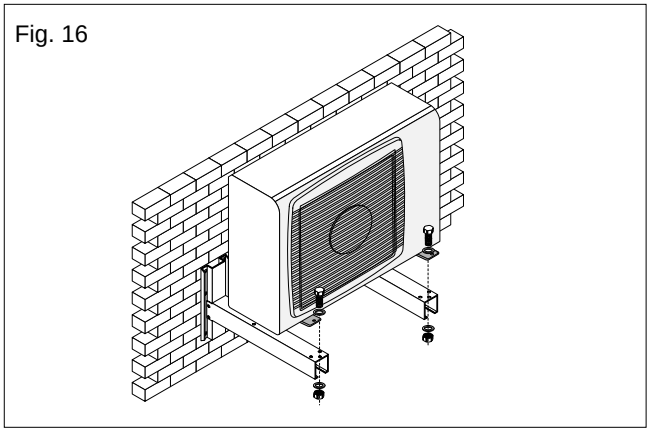


SUSPENDED INSTALLATION

The minimum spaces indicated should be observed for suspended installation, which requires a support kit that must be ordered separately.

⚠ Carefully check the structure and the capacity load of the supporting wall. Fig.(16).

Fig. 16



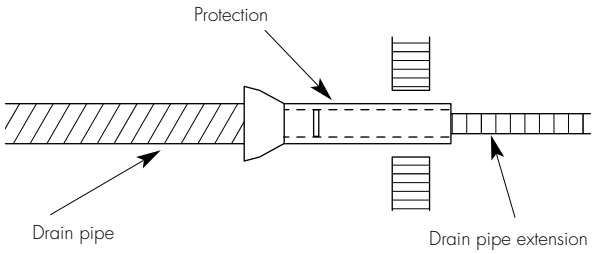
CONDENSATE DRAINAGE

The indoor unit is fitted with a condensate drain pipe, to which a drainage hose (ø inside 16 mm) should be connected leading to a suitable drainage outlet.

- Fasten the condensate drain pipe to the refrigerant pipes with adhesive tape whenever the lines cross through a wall; this is to prevent the condensate drain pipes from being flattened. Fig.(17) - Fig.(18).

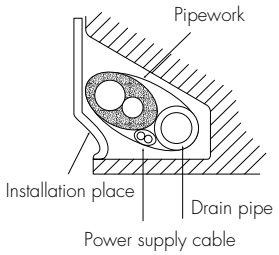
- In the summer mode of operation, check that the condensate is flowing out regularly.

Fig. 17



⚠ The drainage pipe should have a 2° slope down towards the drain; it should never slope upwards.

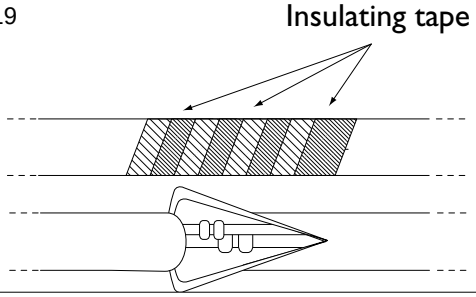
Fig. 18



⚠ Check all the joints for leaks.

⚠ Apply thermal insulating material to the joints. Fig.(19).

Fig. 19



- The condensate drain pipe should be inserted onto the coupling located on the bottom left part of the indoor unit.

⚠ Do not carry out any cleaning operations until you have disconnected the air conditioner from the power supply by setting the system's main switch to "OFF".

CLEANING THE INDOOR UNIT
The appliance should be cleaned using a slightly damp cloth. Dry it with a dry cloth.
For safety reasons, do not use water to clean the air conditioner.

Caution
Do not use gasoline, alcohol or solvents for cleaning. Do not spray insecticide or similar products on the unit.

CLEANING THE AIR FILTERS
To ensure the long life and efficiency of your air conditioner follow these instructions:
1. Clean the dust filter once a week.
2. Replace the purifying filter (if any) at the end of each season, or when it is exhausted (follow the instructions posted on the appliance next to the filter seat).

The air purifying filters are located under the front intake grille.
To clean the filters you need to:
1. Lift the front grille as shown in fig. 20.
2. Remove the purifying filter (black).

Remove the dust from the dust filter using a vacuum cleaner. If there is a considerable amount of dust, wash with lukewarm water and rinse thoroughly. The water temperature must not exceed 40°C. After washing, let the filter dry.
To reinstall the filters, replace them in the filter holder, then reposition the latter in the machine.

SEASON CHECKS
- Before starting the appliance, make sure that the power cord and outlet are in perfect condition and that the earthing/grounding system is efficient.
- Follow the installation instructions carefully.

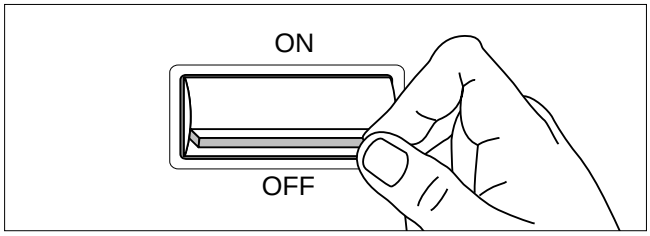
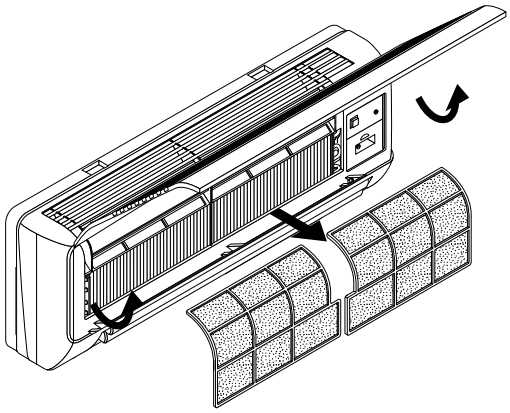


Fig. 20



Periodic maintenance is essential for the safety, efficiency, reliability and long-life of the air-conditioner.

This may be periodically carried out by the DēLonghi Service Centre, which is technically prepared and also has original spare parts when necessary.

USER DIAGNOSTICS

U I A

If there is an alarm, keep the MODE key on the indoor unit keyboard pressed down for about 4 sec. and wait for the acoustic signal, which is followed by the blinking of the leds indicating the nature of the problem connected with the alarm.

Room temp. sensor fault	**ON**	OFF	OFF
Coil temp. sensor fault	OFF	**ON**	OFF
Appliance empty	**ON**	**ON**	OFF
Condensate drain pump fault	**ON**	OFF	**ON**
High pressure switch fault	OFF	**ON**	**ON**
Fan fault	**ON**	**ON**	**ON**

TROUBLESHOOTING

U I A

In the event of **problems** or **failure,** go through the following table. Should the problem persist, disconnect the air-conditioner from the mains electricity supply and contact the nearest Service Centre.

If the problem is not indicated in the table, please contact your installer.

PROBLEM	CAUSE	REMEDY
The fan does not operate	Power failure	Check the power supply
		Check the fuse on the electronic card
	On/off switch on "off"	Put to "on"
	Faulty remote control or discharged batteries	Check
	Faulty fan	Check fan motor
	Faulty electronic card	Check
Insufficient output	Clogged mesh filter	Clean the filter
	Air flow obstructed	Remove obstruction
	Remote control regulation	Check
The appliance does not work for about 3' upon starting	Form of protection of the mechanism	Just wait 3' and the air-conditioner will start working again
Simultaneous blinking of indicator lights	General failure	Check (see user booklet)
Noise and vibration	Contact between metal parts	Check
	Loose screws	Tighten screws